SECTION 3. INSTALLING THE SOLARIS 2.3 OPERATING SYSTEM

3.1 Installing Solaris 2.3/SUN OS 5.3 Operating System

This section describes installation of the Solaris 2.3 Operating System on all SUN SPARCworkstations. This procedure takes between40 minutes and 4 hours depending upon the number and size of the hard disk drives attached to the workstation.

Before installing the Solaris 2.3 Operating System you should have the following information:

IP address of the platform: _____ .
Netmasks value for platforms LAN segment: _____ .
Hostname of platform that is sharing */h/data/global*: _____ .
IP address of platform that is sharing */h/data/global*: _____ .

3.1.1 Boot the Solaris CDROM

Perform the following steps:

1. Power up the system.

2. Immediately press <**Stop**> and lower case**[a]** simultaneously.

3. Insert the Solaris 2.3 CD (August 94 or later) into the system.

4. To ensure that the system boots from the correct drive after the operating system is installed, execute the following at the**ok** prompt:

   setenv boot-device disk3<**Return**>

   In most cases, this should be**disk3**, which corresponds to drive*c0t3d0*. If another drive is used to install the A/@ and A/**usr**@ partitions on, the value must be changed accordingly.

5. At the **ok** prompt type:

   boot cdrom <**Return**>

After approximately4 minutes the Solaris open windows logo screen appears, followed by the Solaris Install screen.

3.1.2. Configure the Solaris 2.3 Operating System

Answer the following questions as indicated:

```
What is the host name for your workstation?
```

1. Enter the **hostname** and press <**Return**>. Hostnames must be at least two and not more than eight characters in length. A host name may contain letters, digits, and minus (-) signs. A host name may not begin or end with a minus (-) sign.

NOTE: If you are rebuilding a system, steps 2 through 5 will not appear.

```
What is the primary network interface?
le0
le1
Will this system be connected to a network?
```

2. Select **Yes** using <**Arrow**> keys and press <**Return**>.
3. Select the appropriate**interface** using the <**Arrow**> keys and press <**Return**>.

```
What is your Internet Protocol (IP) address?
```

4. Enter the **IP address** and press <**Return**>. (Example 164.117.210.61, do not use leading zeros

```
Is the following information correct?
Hostname: Example:  zeppo
Connected to network: Y
IP Address: Example: 164.117.210.61
```

for any of the four numbers, e.g. .061 vs .61)

```
Do you want to configure this system as a client of a name service?
```

5. Verify the information is correct and select **yes, continue** and press <**Return**>.
6. Select **none - use /etc** files and press <**Return**>.

```
Does this workstation's network have subnetworks?
```

```
This is your default netmask value.  You may change it if necessary,
but the format must remain as four numbers separated by periods.
                Netmask:   255.255.255.0
```

7. Select **yes** and press <**Return**>.

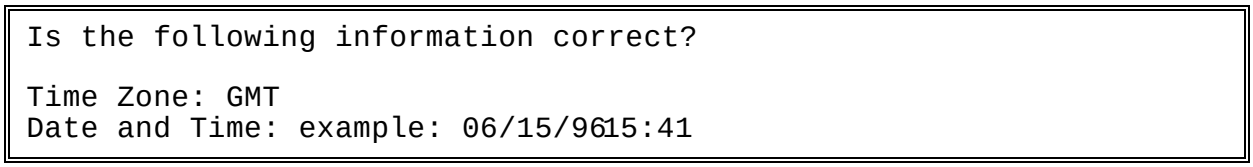
```
Is the following information correct?
Name service: none
Network is subnetted: Yes
Netmask:  example: 255.255.255.0
```

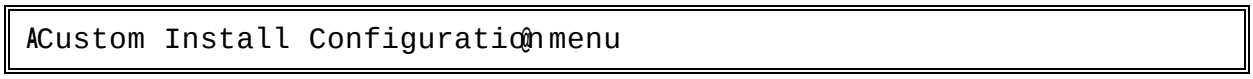
8. Enter the **subnetwork netmask** value (example 255.255.255.0) and press <**Return**>.

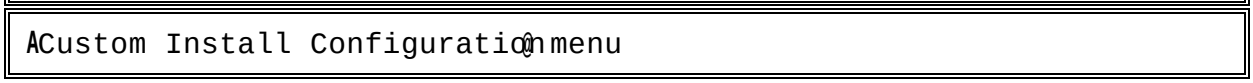
```
What is your geographic region?
Please specify the number of hours of difference between Coordinated
Universal Time (GMT) and your own time zone.  If you are east of
Greenwich, England, specify a positive number; if you are west of
Greenwich, specify a negative number:

                Hours offset    (-12 . . 13):  _______
```

9 Verify the information is correct and select **yes, continue** and press <**Return**>.
10. Select **other - offset** from GMT and press <**Return**>.
11. Enter **0** (zero) and press <**Return**>.

12. Enter the current **ZULU time** and press <**Return**>.







13. Verify the information is correct and select **yes, continue** and press <**Return**>.
14. Using the <**Tab**> key, Select **CUSTOM INSTALL** and press <**Return**>.
15. Use the <**Tab**> key to select **SYSTEM TYPE** and press <**Return**>.
16. Using the <**Arrow**> keys, highlight **STANDALONE** and press <**Return**> to select, <**Tab**> to **APPLY,** and press <**Return**>.
17. Use the <**Tab**> key to select **SOFTWARE SELECTION** and press <**Return**>.

```
ADefault Software Configuration menu
```

18. Using the <**Arrow**> key, highlight the following and press <**Return**> to select, <**Tab**> to **APPLY**, and press <**Return**>.

ENTIRE DISTRIBUTION (not OEM Support) SPARC 1000/2000s

```
ACustom Install Configuration menu
```

END USER SYSTEM SUPPORT All other systems.

19. Use the <**Tab**> key to select **Disks/File Systems** and press <**Return**>

3.1.3. Configure Hard Disk Drives

Perform the following steps:

```
ALocal Disk & File Systems menu

Disk            Size            Status
c0t3d0          1002MB    -unconfigured
c0t1d0          1002MB    -unconfigured
c0t2d0          2028MB    -unconfigured
```

1. Use the <**Arrow**> keys to select a **disk** and press <**Return**>.

```
Configure Disk
Unconfigure Disk
Dismiss Menu
```

2. Select **Configure Disk** and press <**Return**>.

```
ADisk Editing Properties menu    (appears only once)
Initial Disk Configuration:[    Sun Defaults              ]
                           [    Existing Slices           ]
                           [ *  None                        ]
                           [    Redo Current Initial Config]
     Size Editing Units:   [ *  Mbytes                     ]
                           [    Cylinders                 ]
                           [    Blocks                    ]
Allow Overlapping Slices?  [   ]No
Display Start/End Cylinders?[  ]No
Provide Default Size Hints?[   ]No
```

3. Use the <**Tab**> and <**Arrow**> keys to set the Disk Editing Properties as shown above, then

```
Tables 3.2-1 through 3.2-6 identify the partition maps for the
majority of GCCS SPARC workstations:

Table 3.2-1. GCCS Application Server Partition Maps
Table 3.2-2. GCCS SPARC 5 Client Partition Maps
Table 3.2-3. GCCS Executive Manager Server Partition Maps
Table 3.2-4. AGCCS SPARC 20 Partition Maps
Table 3.2-5. GCCS Partition Maps for SPARC 1000/2000 CPU Resident
   Disk Drives
Table 3.2-6. GCCS SPARC 1000/2000 Pedestal/Tower Drive Partition
   Guidance
```

<**Tab**> to **Apply** and press <**Return**>.

```
Configuring File Systems on Disk (c0t3d0)
Slice     Mount Point     Size(MBs)
0                                    0
1                                    0
2                                    1002
3                                    0
4                                    0
5                                    0
6                                    0
7                                    0

Unallocated Space:   1002MBs
```

4. Identify the applicable partition table.
5. Use the <**Tab**> key to fill in the values for slice, mount point, and size according to applicable partition table. Press <**Tab**> to **Apply** and press <**Return**>.

6. When all drives are partitioned use the <**Tab**> to select **Done** and press <**Return**>.

3.2 Partitioning Disk Drives

NOTE: WARNING - Do not, under any circumstances, modify partition (slice) 2

Table 3.2-1. GCCS Application Server Partition Maps

DRIVES =>	2 x 1.1 GB 1 x 2.1 GB		2 x 2.1 GB		1 x 4.2 GB	
Disk Device	**Name**	**Size (MB)**	**Name**	**Size (MB)**	**Name**	**Size MB)**
	1002 MB Drive		**2028 MB Drive**		**4056 MB Drive**	
c0t3d0s0	/	65	/	65	/	95
c0t3d0s1	swap	112	swap	112	swap	336
c0t3d0s3	/var	100	/var	100	/var	100
c0t3d0s4					/security1	100
c0t3d0s5	/opt	35	/opt	35	/security2	100
c0t3d0s6	/usr	129	/usr	129	/usr	129
c0t3d0s7	/h	559	/h	1587	/h	3196
	1002 MB Drive		**2028 MB Drive**			
c0t__d0s0	/home1	801	/home1	1604		
c0t__d0s1			swap	224		
c0t__d0s3	/security1	100	/security2	100		
c0t__d0s4	/security2	100	/security1	100		
	2028 MB Drive					
c0t__d0s0	/home2	1804				
c0t__d0s1	swap	224				

NOTE: WARNING - Do not, under any circumstances, modify partition (slice) 2

Table 3.2-2. SPARC 5 Client Partition Maps

DISKS	**2 x 1.1 GB Drives**		**1 x 2.1 GB Drive**		**1x1.1GB & 1x535MB Drives**	
	Name	**Size (MB)**	**Name**	**Size (MB)**	**Name**	**Size (MB)**
	1002 MB Drive		**2028 MB Drive**		**535 MB Drive**	
c0t3d0s0	/	65	/	105	/	65
c0t3d0s1	swap	64	swap	128	swap	64
c0t3d0s3			/security1	50		
c0t3d0s4			/security2	50		
c0t3d0s5	/opt	35	/opt	35	/opt	35
c0t3d0s6	/usr	129	/usr	129	/usr	129
c0t3d0s7	/h	707	/h	1521	/h	242
	1002 MB Drive				**1002 MB Drive**	
c0t__d0s0	/home1	787			/home1	787
c0t__d0s1	swap	64			swap	64
c0t__d0s3	/security1	50			/security1	50
c0t__d0s4	/security2	50			/security2	50
c0t__d0s5	/var	50			/var	50

Table 3.2-3. GCCS Executive Manager Server Partition Maps

Disk Devices	**2 x 1.1 GB & 1 x 2.1 GB Drives**		**2 x 2.1 GB Drives**		**1 x 4.2 GB Drive**	
	Name	**Size (MB)**	**Name**	**Size (MB)**	**Name**	**Size (MB)**
	1002 MB Drive		**2028 MB Drive**		**4056 MB Drive**	
c0t3d0s0	/	65	/	100	/	215
c0t3d0s1	swap	112	swap	112	swap	336
c0t3d0s3			/security1	100	/security1	200
c0t3d0s4			/security2	100	/sybase	279
c0t3d0s5	/opt	35	/h/data/global	500	/h/data/global	500
c0t3d0s6	/usr	129	/usr	129	/usr	129
c0t3d0s7	/h	659	/h	857	/h	2050
	1002 MB Drive					
c0t__d0s0	/h/data/global	501				
c0t__d0s1	/security1	100				
c0t__d0s3	/security2	100				
c0t__d0s4	/home1	300				
	2028 MB Drive		**2028 MB Drive**			
c0t__d0s0	/home2	1073	/home2	1073		
c0t__d0s1	swap	224	swap	224		
c0t__d0s3	/var	500	/var	500		
c0t__d0s4	*raw*	17	*raw*	17		
c0t__d0s5	*raw*	12	*raw*	12		
c0t__d0s6	*raw*	100	*raw*	100		
c0t__d0s7	*raw*	100	*raw*	100		

NOTE: WARNING - Do not, under any circumstances, modify partition (slice) 2

Table 3.2-4. AGCCS SPARC 20 Partition Maps (with 18x1.1GB SPARCstorage Array)

	Executive Manager Server or Application Server	
Disk Device	**Name**	**Size (MB)**
	1002 MB Drive	
c0t3d0s0	/	65
c0t3d0s1	swap	116
c0t3d0s3		
c0t3d0s4	/var	191
c0t3d0s5	/opt	200
c0t3d0s6	/usr	129
c0t3d0s7	/h	300

Table 3.2-5. Partition Maps for SPARC 1000/2000 CPU Resident Disk Drives (Cont.)

NOTE: WARNING - Do not, under any circumstances, modify partition (slice) 2

Table 3.2-5. Partition Maps for SPARC 1000/2000 CPU Resident Disk Drives

DISK	4x510MB Internal [Note 1]		Array(s) 4x1.1GB Internel		2x2.9GB Internel		Comments
	Name	**Size (MB)**	**Name**	**Size (MB)**	**Name**	**Size (MB)**	
c0t3d0s0	/	100	/	100	/	100	
c0t3d0s1	swap	110	swap	250	swap	400	
c0t3d0s5			/h	351	/h	351	
c0t3d0s6	/usr	300	/usr	300	/usr	300	
c0t3d0s7					/home2	1623	
c0t0d0s0	/var	200	/var	200	/var	300	
c0t0d0s1	swap	110	swap	250	swap	400	
c0t0d0s3	/opt	200	/opt	300	/opt	300	<= **Note 2**
c0t0d0s5			/home2	251	/home3	1074	
c0t0d0s6					/security 1	300	
c0t0d0s7					/security 2	300	
c0t1d0s0	/security1	300	/security1	300			
c0t1d0s1	/h	210	swap	250			
c0t1d0s3			/home3	451			
c0t2d0s0	/security2	300	/security2	300			

Table 3.2-5. Partition Maps for SPARC 1000/2000 CPU Resident Disk Drives (Cont.)

DISK	4x510MB Internal [Note 1]		Array(s) 4x1.1GB Internel		2x2.9GB Internel		Comments
c0t2d0s1	swap	210	swap	250			
c0t2d0s3			/home4	451			

NOTE 1: Additional disk drives are required to support this configuration. Insufficient disk space is available for swap when using SPARCstorage arrays only.

NOTE 2: If additional non-SPARC storage array disk drives are added, */opt* should be moved to these drives as shown in Table 3.2-6. The disk space freed up by moving */opt* should be added to */home2* if available, otherwise add it to swap.

NOTE 3: Never put */home1* on the "Resident Drives" of the SPARC 1000/2000s. */home1* is reserved for one of the volumes on the SPARCstorage arrays. This insures that the ORACLE and RDBMS segments are installed on the SPARCstorage arrays, which are mirrored for redundancy.

Table 3.2-6. SPARC 1000/2000 Pedestal/Tower Drive Partition Guidance (Cont.)

NOTE: WARNING - Do not, under any circumstances, modify partition (slice) 2

Table 3.2-6. SPARC 1000/2000 Pedestal/Tower Drive Partition Guidance

Disk/Slice	Files System Name	2.1 GB Drives (MB)	2.9 GB Drives (MB)
Drive 1			
c__t__d0s0	/opt	1028	1028
c__t__d0s1	/home5	800	1743
Drive 2			
c__t__d0s0	/oracle/smback	2028	2775
c__t__d0s0	***/h/USERS***	If not Oracle DB Server at JOPES Core DB Site	
Drive 3			
c__t__d0s0	/home6	Remaining disk space after swap allocation.	
c__t__d0s1	swap	Size of physical memory in MBs	
Drive 4			
c__t__d0s0	home7	1928	2675
c__t__d0s1	swap	100	100
Drive 5			
c__t__d0s0	/home8	1928	2675
c__t__d0s1	swap	100	100
Drive 6			
c__t__d0s0	/home9	1928	2675
c__t__d0s1	swap	100	100
Drive 7			
c__t__d0s0	/home10	1928	2675
c__t__d0s1	swap	100	100

Table 3.2-6. SPARC 1000/2000 Pedestal/Tower Drive Partition Guidance (Cont.)

Disk/Slice	Files System Name	2.1 GB Drives (MB)	2.9 GB Drives (MB)
Drive 8			
c__t__d0s0	/home11	1928	2675
c__t__d0s1	swap	100	100
Drive 9			
c__t__d0s0	/home12	1928	2675
c__t__d0s1	swap	100	100
Drive 10			
c__t__d0s0	/home13	1928	2675
c__t__d0s1	swap	100	100
Drive 11			
c__t__d0s0	/home14	1928	2675
c__t__d0s1	swap	100	100
Drive 12			
c__t__d0s0	/home15	1928	2675
c__t__d0s1	swap	100	100
Drive 12			
c__t__d0s0	/home16	1928	2675
c__t__d0s1	swap	100	100
Drive 13			
c__t__d0s0	/home17	1928	2675
c__t__d0s1	swap	100	100
Drive 14			
c__t__d0s0	/home18	1928	2675
c__t__d0s1	swap	100	100

3.2.1. Setting Up Remote File System Mount

This section is executed to set up the NFS mount of the */h/data/global* file system and/or the file system where the Kernel Network Installer is located.

a. The */h/data/global* directory contains the kernel_config file which automates the installation of the GCCS Kernel by answering most of the questions that are required to build a GCCS Version 2.2 system. The default location for the Kernel Network Installer is also the */h/data/global* directory

b. If the Kernel Network Installer is located on a different platform and/or is located on a different file system (not */h/data/global*) the following steps should be executed for Kernel Network Installer platform and file system.

c. Before proceeding with this section you should insure that the platform sharing */h/data/global* will allow this platform to mount */h/data/global*. This implies that the platform with /h/data/global knows who the platform you are building is and that the NIS+ netgroup file has the platform you are building in it.

d. If this workstation/server is where */h/data/global* is physically located, and is shared from, and you are not going to use the Kernel Network Installer, go directly to Section 3.2.2, Begin the Installation.

```
Custom Install Configuration menu
```

Perform the following steps:

1. Use the <**Tab**> key to select **Remote File Systems** and press <**Return**>.

```
Add/Edit/Delete Remote File Systems menu

Mount Point          Server: File System       Can Mount?
None
```

2. Highlight **none** and press <**Return**>.

```
Add
Edit
Test Mount
Delete
Dismiss Menu
```

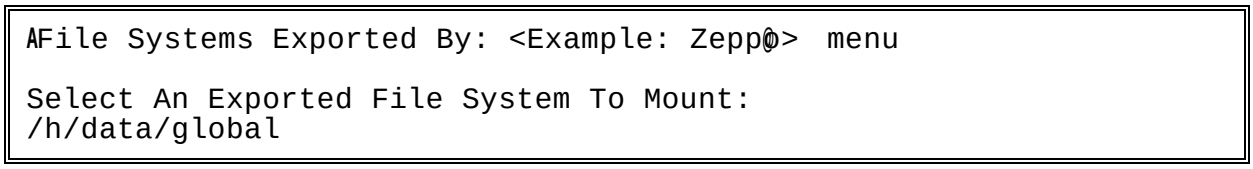
```
AAdd A New Remote File Syste@mmenu

               Server:
           IP Address:
                      (Show Exported File Systems . . .)
Enter Remote File System:
     Local Mount Point:
```

```
Please provide an IP Address for server <Example: zeppo>.
```

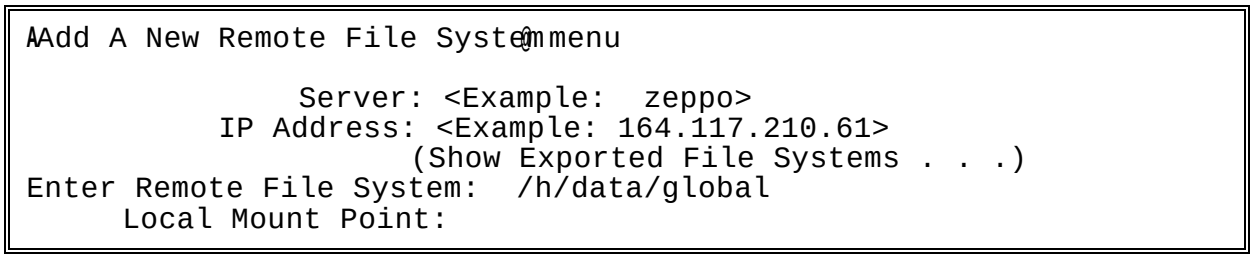
```
(Show Exported File Systems . . .)
```

3. Select **add** and press <**Return**>.
4. Enter **hostname** of EM server or workstation sharing */h/data/global* and press <**Return**>.

5. Press <**Tab**> to select IP address. Enter **IP address** of EM server or workstation sharing */h/data/global* and press <**Return**>.
6. Press <**Return**> to show the exported file systems of the system entered above.



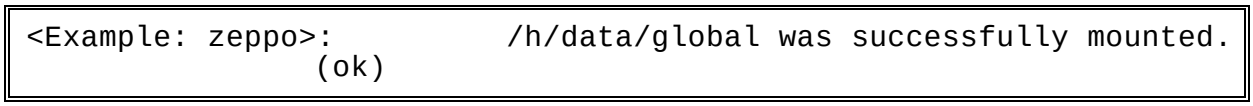
7. Use <**Arrow**> keys to select */h/data/global* from list and press <**Return**>. The press <**Tab**> to



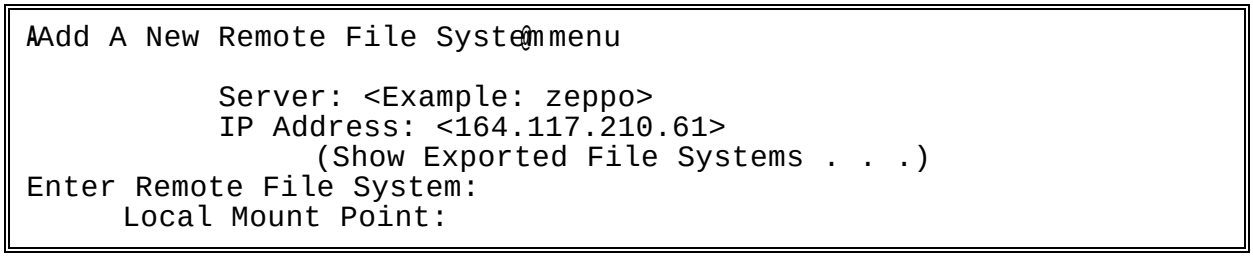
Apply and press <**Return**>

8. Press <**Tab**> to Local Mount Point. Enter */h/data/global* for Local Mount Point and press

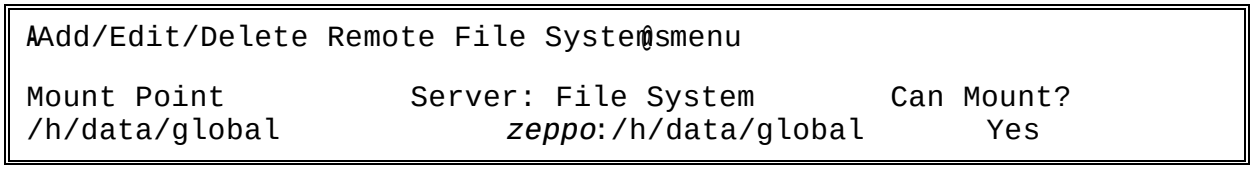
<**Return**>.



9. Use <**Tab**> to select **Test Mount** and press <**Return**>.

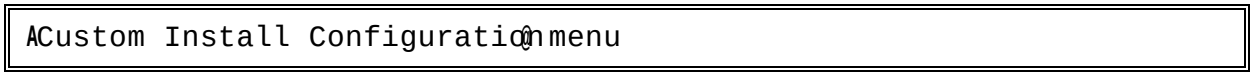


10. Press <**Return**> to acknowledge.
11. <**Tab**> to **Apply** and press <**Return**>.



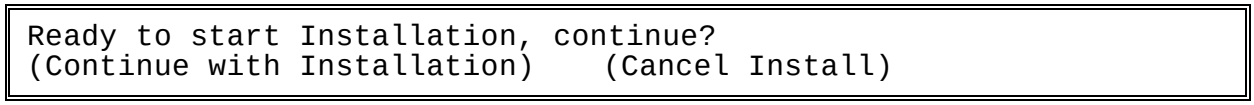
12. <**Tab**> to **Dismiss** and press <**Return**>.

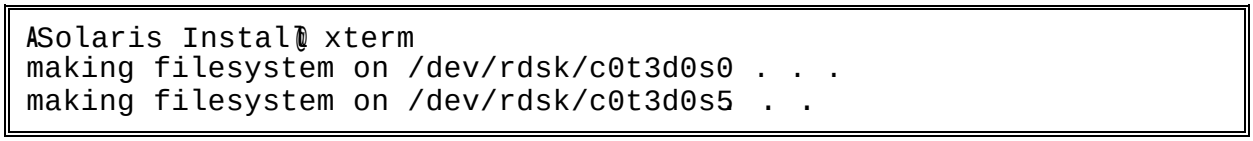
13. Press <**Tab**> to **Done** and press <**Return**>.



3.2.2. Begin the Installation

1. Use <**Tab**> to select **Begin Install** and press <**Return**>.





2. Use <**Tab**> key to select **Continue with Installation** and press <**Return**>.
3. The installation process will take between **40 minutes and four hours** depending upon the number and size of the disk drives on which file systems are being made.
4. Enter the desired **root password** and press <**Return**>.

5. Log in as **root.**

6. Enter **eject**, and press <**Return**>. The CDROM drive ejects the CD.